

Application Number 10/034,776

Amendment in Response to Office Action mailed September 23, 2005

### REMARKS

This Amendment is responsive to the Office Action mailed September 23, 2005. In this Amendment, Applicant has amended claims 3, 4, 22, 23, and 35, and added new claim 37. Claims 1-37 are now pending.

The Office Action rejected claims 1-4, 12-16, 20-23, 26, 27, 33, and 34 under 35 U.S.C. 103(a) as being unpatentable over Stevens (GB 2,336,975A) in view of MPEP 2144.03, and rejected claims 5-11, 17-19, 24-25 and 28-32 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of MPEP 2144.03, and further in view of Lynk (EP 3,321,672).

Applicant respectfully traverses the rejections in view of Stevens and Lynk. As previously discussed in detail, e.g., in the Appeal Brief filed July 5, 2005, Stevens and Lynk fail to disclose or suggest the inventions defined by Applicant's pending claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

For example, contrary to the requirements of pending claims 1-11, 20-33, or claims 35 and 36, Stevens and Lynk do not disclose transmission of audio with an access request in a point-to-multipoint communication system.

Similarly, Stevens and Lynk do not disclose reception of audio with an access request in a point-to-multipoint communication system, as defined by claims 12-19 and 34.

Stevens and Lynk also fail to disclose or suggest termination of an audio transmission in the event an access request is denied in a point-to-multipoint communication system, as set forth in claims 1-11, 20-25, 33, 35 and 36.

In addition, Stevens and Lynk do not disclose or suggest transmission of audio from a wireless communication device before receiving an acknowledgement that an access request is granted in a point-to-multipoint communication system, as set forth in claims 35 and 36.

Finally, Stevens and Lynk do not disclose transmitting audio from a wireless communication device to network equipment before an access request is granted or denied in a point-to-multipoint communication system, and terminating the audio transmission and discarding the transmitted audio if the access request is denied, as set forth in new claim 37.

Stevens and Lynk also fail to disclose several additional features set forth in various dependent claims.

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For conciseness, the discussion below addresses the rejections in terms of the limitations set forth in the various claims.

***Claims 1-34: Transmission or Reception of Audio with Access Request***

Neither Stevens nor Lynk makes any mention of the transmission of audio with an access request in a point-to-multipoint communication system, as required by Applicant's claims 1-11 and 20-33, nor the reception of audio with an access request in such a system, as required by claims 12-19 and 34.

As previously discussed, e.g., in the Appeal Brief filed July 5, 2005, Stevens describes a mobile radio system in which the contents of a call are stored when a suitable communication path for a target mobile radio unit is not available. In the Stevens system, the call contents are stored as a message for later transmission to the target mobile radio unit when a communication path becomes available, i.e., when an access request is granted.

According to Stevens, the contents of a call can be stored in a mobile radio unit or in a base station. In each case, however, the call contents are stored when a communication path is not available. In one embodiment, call contents are stored if access to a communication path to at least one of a plurality of mobile radio units is granted.<sup>1</sup> In this case, however, Stevens still does not describe the transmission of the call contents with an access request. Instead, it is clear that an access request must be processed in order for the call contents to be transmitted.

Stevens describes a method comprising "attempting a call to at least one target mobile radio unit . . . and if a suitable communication path is not available, then storing the contents of said call as a message for later transmission" (emphasis added).<sup>2</sup> Consistent with this method, Stevens describes a "means to store the contents of said call as a message for later transmission to those mobile radio units for which it is determined that no suitable communication path is available."<sup>3</sup>

Stevens further states that "it is checked if there is a suitable communication path from the caller to the target mobile radio unit," and "[i]f a suitable communication path is not available, the

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<sup>1</sup> Page 8, line 34, to Page 9, line 9.

<sup>2</sup> Page 2, lines 13-22.

<sup>3</sup> Page 2, lines 31-35.

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contents of the call are stored for future transmission.”<sup>4</sup> Stevens indicates that this approach “contrasts with . . . simply refusing to connect a call if the communication path to . . . at least one of the target mobile radio units is not available.”<sup>5</sup>

In the Stevens system, by storing call contents when a communication path is not available, “a group voice call to plural mobile radio units . . . will go ahead without having to wait for suitable radio channels to be available for each of the target mobile radio units.”<sup>6</sup> Hence, unavailability of a communication path to one of the plural radio units does not prevent communication with the other radio units.

Instead, the call proceeds for available radio units, while the call contents are stored for later transmission to the unavailable radio unit(s). In this manner, “all the locatable units will eventually receive the call.”<sup>7</sup> For example, Stevens refers to a series of later transmission attempts by which the call contents may be received.<sup>8</sup> On the other hand, if a communication path is available, as indicated by the grant of an access request, Stevens indicates that the call proceeds in a normal manner.<sup>9</sup>

Stevens describes the buffering of a call in a “storage means” in a mobile radio unit, followed by transmission of the buffered call when a suitable communication path is available. For example, Stevens states that the storage means may “act as a buffer to store part or all of a message even when suitable communication paths are available and a call has been granted to one or more of the target mobile units.”<sup>10</sup> In this case, a call must be granted for at least one target mobile unit in order to store the message for other target mobile units.<sup>11</sup>

Hence, Stevens describes (1) the storage of a call when a communication path is not available, (2) the local buffering of a call in a mobile radio unit for transmission when a suitable communication path becomes available, or (3) the buffering of a call in a mobile radio unit or elsewhere for mobile units when a call has been granted to at least one other mobile unit. In no

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<sup>4</sup> Page 3, lines 1-10.

<sup>5</sup> Page 3, line 36, to page 4, line 3.

<sup>6</sup> Page 4, lines 5-10.

<sup>7</sup> Page 4, lines 5-10.

<sup>8</sup> Page 4, lines 30-33.

<sup>9</sup> Page 3, lines 25-28 (“Where a suitable communication path . . . is available the call most preferably proceeds as normal”).

<sup>10</sup> Page 8, line 34, to Page 9, line 9.

<sup>11</sup> Page 8, line 34, to Page 9, line 3.

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event, however, does Stevens suggest transmission or reception of audio with a request for access, as required by claims 1-34. On the contrary, transmission or reception of audio in the Stevens system is dependent upon either the grant or denial of an access request.

In support of the rejections, the Office Action asserted that Stevens describes transmitting audio with an access request, pointing to page 3, lines 31-35, and page 4, lines 5-10. In particular, the Office Action characterized Stevens as teaching that "even if resources are not available the access request and voice message are sent by a user of the group." The application of Stevens to the claimed invention is misplaced. As discussed above, Stevens does not suggest transmission of audio with an access request.

On the contrary, Stevens describes storage of call contents when a suitable communication path is not available, i.e., after denial of an access request, or after the grant of an access request to at least one mobile communication unit. At page 3, lines 25-35, Stevens explicitly states that a call proceeds when a suitable communication path is available, i.e., when an access request is granted.

Where multiple communication paths are involved, Stevens requires that at least some of the communication paths are available prior to transmission of a call. Hence, in the Stevens system, transmission of a call requires the processing of an access request. Consequently, there is no teaching in Stevens that would have suggested transmission of audio with an access request, as defined in claims 1-34.

Stevens states that "[w]here a suitable communication path to a located target mobile radio unit is available the call most preferably proceeds as normal."<sup>12</sup> Stevens further states that "where a group of plural mobile radio units is called, the call can be connected to the available units and a message stored for the rest."<sup>13</sup> From Stevens, it appears that a call is connected once a suitable communication path is available, while the call contents can be stored for those units for which a communication path is unavailable. In such a case, the grant of an access request is necessary before the call contents are actually transmitted.

If the point made in the Office Action is that Stevens describes transmission of call contents when some of the communication paths are not available, this seems to overlook the fact

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<sup>12</sup> Page 3, lines 25-27.

<sup>13</sup> Page 3, lines 28-31.

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that at least one communication path must be available, and that access is granted with respect to that communication path. Accordingly, transmission of the call contents must await the grant of an access request and does not proceed with an access request. Moreover, per Stevens, call contents are stored or transmitted after an access request is processed, resulting in either grant or denial of the access request. Stevens does not suggest transmission of audio with an access request. Therefore, the rejection of claims 1-34 should be withdrawn.

***Claims 3, 4, 15, 16, 22, 23, 35 and 36 - Audio Transmission Before/Without Grant or Denial***

Stevens and Lynk also fail to disclose or suggest transmitting audio from a wireless communication device before receiving an acknowledgement that an access request is granted or denied, as set forth in claims 3, 15, 22, 35 and 36. Claims 4, 16, and 23 require that the audio is transmitted without receiving an acknowledgement that the access request is granted or denied.

Stevens does not suggest transmission of audio before or without an access request grant or denial. Stevens describes storage of call contents when a suitable communication path is not available, i.e., after denial of an access request, or after the grant of an access request grant to at least one mobile communication unit.

In support of the rejection, the Office Action asserted that Stevens teaches "transmitting the audio before receiving an acknowledgement that the access request is granted," citing page 5, line 37, to page 6, line 12, of Stevens. More particularly, the Office Action stated that the sending unit described by Stevens does not receive a grant "for those units whose resources are 'unavailable.'" Apparently, the position advanced in the Office Action is that, even though one or more grants may be received, the fact that grants may not be received for all units is equivalent to transmitting audio before an acknowledgement of the access request is granted. This position is untenable.

Applicant's claims require that audio is transmitted before or without an access request grant or denial. Clearly, in Stevens, transmission of a call requires a grant for at least one unit. Therefore, there is no transmission in the Stevens system before or without an access grant or denial. Applicant respectfully submits that the Office Action has misinterpreted the Stevens reference to support a teaching that it does not contain.

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Whether some resources are unavailable or not, it is undeniable that Stevens requires processing of an access request before proceeding with call transmission. This is in contrast to the claimed invention, which is capable of providing significant reductions in system latency by transmitting audio before or without an access request grant or denial.

Where multiple communication paths are involved, Stevens requires that at least some of the communication paths are available prior to transmission of a call. In particular, Stevens states that "[w]here a suitable communication path to a located target mobile radio unit is available the call most preferably proceeds as normal."<sup>14</sup>

Stevens further states that "where a group of plural mobile radio units is called, the call can be connected to the available units and a message stored for the rest."<sup>15</sup> Hence, from Stevens, it appears that a call is connected once a suitable communication path is available, while the call contents can be stored for those units for which a communication path is unavailable. In such a case, the grant of at least one access request is necessary before the call contents are transmitted.

In Stevens, audio is not transmitted before receiving an acknowledgement that an access request is granted, as required by claim 3, 15, 22, 35, and 36, or without receiving an acknowledgement that an access request is granted, as required by claims 4, 16, and 23. Therefore, the rejections of claims 3, 4, 15, 16, 22, 23, 35 and 36 should be withdrawn.

***Claims 1-11, 20-25, 33, 35 and 36 - Termination of Audio Transmission Upon Denial***

Stevens and Lynk provide no teaching that would have suggested termination of an audio transmission in the event an access request is denied, as set forth in claims 1-11, 20-25, 33, 35 and 36. Again, neither Stevens nor Lynk contemplates transmission of audio with an access request, nor transmission of audio before an access request is granted or denied. Accordingly, there is no audio transmission to terminate in the Stevens and Lynk systems.

The Office Action recognized that Stevens does not disclose terminating an audio transmission in the event the access request is denied. However, the Office Action took Official Notice "of Steven's admission where [it] is well known in the art of terminating the audio

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<sup>14</sup> Page 3, lines 25-27.

<sup>15</sup> Page 3, lines 28-31.

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transmission in the event the access request is denied,” citing page 3, line 36, to page 4, line 3.  
The interpretation of the “admission” in Stevens is mistaken.

In the cited passage, Stevens refers to the prior art practice of “simply refusing to connect a call if the communication path to . . . at least one of the target mobile radio units is not available.” Refusing to connect a call, as discussed by Stevens, means that no call is transmitted. Accordingly, in that instance, there is no transmission of audio with an access request, nor transmission of audio before an access request is granted or denied. Indeed, there is no transmission of audio whatsoever as the transmission is refused, presumably in response to denial of an access request. If no audio is transmitted, then there is no audio transmission to be terminated.

Applicant respectfully submits that equating “refusing to connect” with terminating an audio transmission is illogical. Again, Stevens does not refer to terminating an audio transmission that has been transmitted with an access request. Instead, Stevens describes the prior art technique of sending nothing at all if a communication path is not available. Logically, it is not possible to terminate an audio transmission that has never even commenced. The passage in the Stevens reference concerning connection refusal cannot be reasonably construed to meet the requirements of Applicant’s claims concerning termination of an audio transmission.

Moreover, as apparently recognized in the Office Action, the actual technique described by Stevens does not involve termination, but rather retention, of call contents for later transmission when a communication path becomes available. In discussing the prior art technique of refusing connection and disclosing a technique in which a call is stored rather than terminated, Stevens teaches away from termination of an audio transmission. Stevens, in particular, discloses storage and retention of call content, not termination, when an access request is denied.

In the Stevens system, the stored call content is retained until a suitable communication path becomes available. Thus, the approach described by Stevens represents virtually the opposite of that specified by claims 1-11, 20-25, 33, 35 and 36. Rather than terminating the transmission of a call when an access request is denied, Stevens stores the call contents for later transmission, thereby preserving the call.



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In view of the lack of any prior art teaching that would have suggested modification of Stevens to terminate audio transmitted with an access request, the rejection of claims 1-11, 20-25, 33, 35 and 36 is improper and should be withdrawn.

***Claims 5, 17, 24, 30, and 36 - Audio Transmission Serves as Access Request***

Claims 5, 17, 24, 30, and 36 specify that at least a portion of the audio transmission serves as, or is interpreted as, the access request. Claim 30, for example, specifies that the processor of the arbitration controller of claim 26 interprets at least a portion of the audio transmission as the access request. Neither Stevens nor Lynk makes any mention of such a feature.

The Office Action acknowledged that Stevens does not suggest that at least a portion of an audio transmission serves as, or is interpreted as, an access request. However, the Office Action cited Lynk as disclosing such a feature. In particular, the Office Action pointed to Col. 7, lines 5-8, of Lynk, which states "the controller will respond with channel assignment and grant as one becomes available . . . which may occur before the responding party has finishing speaking." Comparison of the cited features of Lynk to the requirements of the claimed invention is misplaced.

In the cited passage, Lynk does not refer to the use of an audio transmission as an access request. Instead, Lynk very clearly states that "a channel request will go to the central controller."<sup>16</sup> Then, the controller will respond with a channel assignment and grant, when a channel becomes available.<sup>17</sup> The subscriber may continue speaking while the channel request is being processed. During this time, speech is buffered. Yet, it is clear that the channel request in Lynk is processed separately while the subscriber speaks. In Lynk, the speech content does not in any way form the channel request. Again, a party may speak while the channel request is being processed because the speech is being buffered. In particular, consistent with the basic objectives of the Lynk reference, the speech content is buffered for later transmission once the actual channel request is granted.

Lynk makes no mention of the transmission of audio with an access request, or the use of an audio transmission to serve as an access request. The generation of a channel request, and the buffering of voice content, are completely separate aspects of the Lynk system. As previously

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<sup>16</sup> Col. 6, lines 56-57.

<sup>17</sup> Col. 6, line 57, to Col. 6, line 2.

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pointed out by Applicant, the cited passage in Lynk describes the process of voice buffering, and says nothing about the use of at least a portion of an audio transmission as the access request, as claimed. Again, the Lynk reference does not describe transmission of audio until after an access request is granted. Therefore, it is unclear how a voice response could possibly be equated with a channel request, which is sent separately in the Lynk system.

In view of the lack of any teaching that would have suggested the use of audio as an access request, the rejection of claims 5, 17, 24, 30 and 36 is improper and should be withdrawn.

***Claims 2, 14, and 21 - Audio Immediately Following Access Request***

Claims 2, 14 and 21 further specify that the audio is transmitted immediately following transmission of the access request.

The Office Action asserted that Stevens teaches such a feature, citing page 3, lines 25-25, page 4, lines 5-10, page 5, line 37, and page 6, lines 1-12. In these passages, Stevens describes transmission of a call to available units and storage of a message for unavailable units. However, in Stevens, neither the call nor the message is transmitted immediately following transmission of an access request. Instead, as discussed previously, the Stevens system processes an access request before a call is transmitted.

Stevens describes audio transmission upon denial or grant of an access request for at least one mobile radio unit. Accordingly, this reference does not suggest transmission of audio immediately following transmission of an access request. In view of this difference, the rejection of claims 2, 14, and 21 is improper and should be withdrawn.

***Claim 6 - Receiving Grant During Audio Transmission***

Claim 6 requires receiving an acknowledgement that the access request is granted during transmission of the audio.

The Office Action acknowledged that Stevens does not teach receiving an acknowledgement that the access request is granted during transmission of the audio. The Office Action cited Lynk, however, for such a teaching. In particular, the Office Action pointed to Col. 5, lines 41-44, of Lynk. In the cited passage, Lynk states that a grant may come soon after an access request when channel loading conditions are light, and may come before a subscriber has

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finished speaking. This simply means that a grant may be received in the Lynk system while audio is being buffered, not during audio transmission. Again, Lynk teaches buffering audio for transmission only after a grant is received. In Lynk, there simply is no audio transmission during which an acknowledgement that an access request is granted could be received.

In view of this difference, the rejection of claim 6 is improper and should be withdrawn.

***Claims 9, 10, 18, 19, and 31 - Access Denial from Wireless Communication Device***

Claim 9 requires receipt of denial of an access request from a wireless communication device via a wireless base station. Claim 10 specifies that an access request denial is generated within a wireless communication device that presently has access to a broadcast link. Claim 18 requires receiving an indication that an access request is denied from the wireless communication device. Claim 19 recites transmitting an access request to a wireless communication device that presently has access to the broadcast link. Claim 31 indicates that a processor that determines whether to grant an access request resides within a wireless communication device.

The Office Action cited Stevens' "admission" concerning receiving the denial of the access request from a wireless communication device in the system via a wireless base station. The Office Action pointed to page 3, line 36, to page 4, line 3, for such a teaching "where the BS sends a wireless radio message to the MS." Applicant is confused by the reference to this passage in Stevens, which refers to refusing to connect a call if a communication path to at least one mobile radio unit is not available.

Applicant assumes that the "BS" and "MS" referred to in the Office Action are intended to refer to a base station and mobile station, respectively. There is no suggestion in Stevens that a denial of an access request is received from a wireless communication device. The sending of a message from a base station to a mobile station, whether that message is an access request denial or not, has nothing to do with the limitations of claims 9, 10, 18, 19 and 31. Those claims require that the denial of an access request come from a wireless communication device, and not just from a base station.

In view of the above differences, the rejection of claims 9, 10, 18, 19 and 31 is improper and should be withdrawn.

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***Claims 13 and 27 - Discarding Audio In Event Access Request is Denied***

Claims 13 and 27 require discarding transmitted audio in the event an access request is denied. Stevens and Lynk describe buffering audio for later transmission. There is no mention in these references that would have suggested discarding audio that is transmitted with an access request. Indeed, the Office Action did not appear to address the limitations of claims 13 and 27.

In view of these differences, and the failure of the Office Action to address claims 13 and 27, the rejection of those claims is improper and should be withdrawn.

***New Claim***

Applicant has added new claim 37 to the pending application. The applied references fail to disclose or suggest the inventions defined by new claim 37, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention. For example, the references fail to disclose or suggest transmitting a request for access to a broadcast link in a point-to-multipoint communication network from a wireless communication device to network equipment, receiving audio from a user of the wireless communication device, transmitting the audio from the wireless communication device to the network equipment before the access request is granted or denied, and terminating the audio transmission and discarding the transmitted audio if the access request is denied. No new matter has been added by the new claim.

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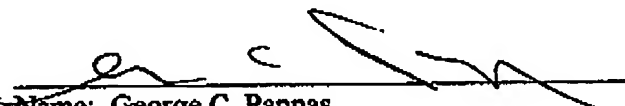
### CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 17-0026. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

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